

U.S. Patent Application Serial No. 09/786,110
Amendment dated January 29, 2004
Reply to OA of July 29, 2003

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 Claim 1 (currently amended): A supportive device for ~~helping physically~~
2 ~~handicapped patients shift from~~ facilitating movement between one structure such as a bed ~~to other~~
3 and another, such as a supportive chair, comprising a chassis (4) having an open rear end, provided
4 with a pair of front wheels (2) and a pair of rear wheels (3), a pillar (14) erected on the chassis (4),
5 a pair of arms (31) provided in the pillar (14), a pair of thigh supports (32) provided in the arms (31),
6 a handrail (46) whose rear end is open, a back upholstery (48) rotatable away from the thigh supports
7 (32), and a lifting device for raising and lowering the thigh supports (32), wherein the arms (31) are
8 ~~eccentrically~~ rotated in accordance with the rotation of shafts (36) ~~axially extending in front of the~~
9 ~~patient's knees~~, in the course of the rotation of the arms (31) the thigh supports (32) being inserted
10 ~~under the patient's thighs~~ moved downward.

1 Claim 2 (currently amended): The supportive device according to claim 1, wherein the thigh
2 supports (32) are capable of inclining.

1 Claim 3 (currently amended): The supportive device according to claim 1 or 2, further
2 comprising a displacing device provided in the arms (31) whereby a spacing between the thigh

3 supports (32) ~~are spaced at an adequate interval in accordance with the patient's size~~ can be
4 modified.

1 Claim 4 (currently amended): The supportive device according to claim 3, wherein the
2 displacing device comprises a pair of brackets (34) provided in the pillar (14), a double bearing unit
3 in which a first bearing (40) having an axial hole and a second bearing (41) having a traverse hole
4 are intersected, a shaft (42) ~~having a axial groove 42a~~ carried in the second bearing (41), a shaft (36)
5 carried in the first bearing (40), the shaft (42) being provided in the base portion of each secured to
6 at least one of the arms (31), wherein the axis of each arm is inserted into the second bearing 41, the
7 ~~double bearing unit being secured in the grooves 42a~~ wherein a space S3 is produced at a point
8 where the shafts are mutually intersected, the arms (31) being ~~rotatably~~ rotatable from its an upper
9 position to a its lower position, and when the arms (31) are raised upward, the respective thigh
10 supports (32) are horizontally rotated so as to space one from the other at an adequate interval.

1 Claim 5 (currently amended): The supportive device according to claim 1, further
2 comprising a bag containing air or gas or liquid placed behind the thigh supports (32), the bag being
3 elastically expanded behind the thigh supports when the lowering thigh supports (32) come into
4 contact with a target structure such as a bed.

1 Claim 6 (withdrawn): A supportive device for helping physically handicapped patients shift
2 from one structure to another, comprising a chassis 104 whose rear end is open, a pillar 105 erected
3 on the chassis 104, a pair of arms 106 provided in the pillar 105 through a rotary bearing 134 so as
4 to allow the arms 106 to rotate from their upper position to their lower position, a pair of thigh
5 supports 107 provided in the arms 106, a handrail 108 having an open rear end being provided above
6 the thigh supports 107, an engaging means 145 provided midway the handrail 108, a back upholstery
7 146, and a lifting device 116 for raising and lowering the thigh supports 107 and the handrail 108,
8 and wherein the rotary bearing 134 is made as a rotary boss 137 which includes a shaft vertically
9 provided in the pillar 105 and a cylinder axially provided in the pillar 105, and the arms 106 being
10 rotatably connected to the rotary boss, thereby ensuring that regardless of the position of the arms
11 106 upward or downward, the thigh supports 107 are maintained rotatable and are spaced at an
12 adequate interval.

1 Claim 7 (withdrawn): The supportive device according to claim 6, further comprising a
2 bearing having a stopper at the front end of the thigh supports 107, an engager provided integral with
3 the arms 106 thereby to support the thigh supports 107, wherein the stopper is kept contact with the
4 engager so as to allow the thigh supports 107 to rotate in a predetermined range with respect to the
5 arms 106.

1 Claim 8 (withdrawn): The supportive device according to claim 6 or 7, wherein the rotary

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2 bearing is inclined rearward.

2 Claim 9 (withdrawn): The supportive device according to claim 6 or 7, further comprising
2 an automatic locking device for holding the arms 106 at a desired upper position.

2 Claim 10 (withdrawn): The supportive device according to claim 6 or 7, wherein the chassis
2 comprises a front wheel provided on the undersurface of a footrest.

1 Claim 11 (withdrawn): The supportive device according to claim 6 or 7, wherein the engager
2 is provided inside the handrail.

1 Claim 12 (withdrawn): The supportive device according to claim 6, wherein the back
2 upholstery 146 comprises a back portion made of such a solid and resilient material that the back
3 upholstery 146 can be inserted between the patient and a structure like a supportive chair, and an
4 engaging portion to be engaged by the engager integral with the arm.

1 Claim 13 (withdrawn): The supportive device according to claim 6 or 12, wherein the back
2 upholstery 146 has a plurality of engaging spots to be selected for engagement with the engager.

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1 Claim 14 (withdrawn): The supportive device according to claim 6 or 12, wherein the back
2 upholstery 146 comprises a three-dimensional back portion having a curved surface.

3 Claim 15 (withdrawn): The supportive device according to claim 12, wherein the back
4 upholstery 146 comprises a belt for preventing itself from slipping off.

5 Claim 16 (withdrawn): The supportive device according to claim 6 or 7, wherein the chassis
104 comprises an expander, and the lifting device is provided inside a sliding framework vertically
slidable along a framework secured to the chassis 104, and a lever of the lifting device is provided
with a mark toward the sliding framework, thereby ensuring that the height of the thigh supports 107
is adjusted by reference to the lever and the mark.